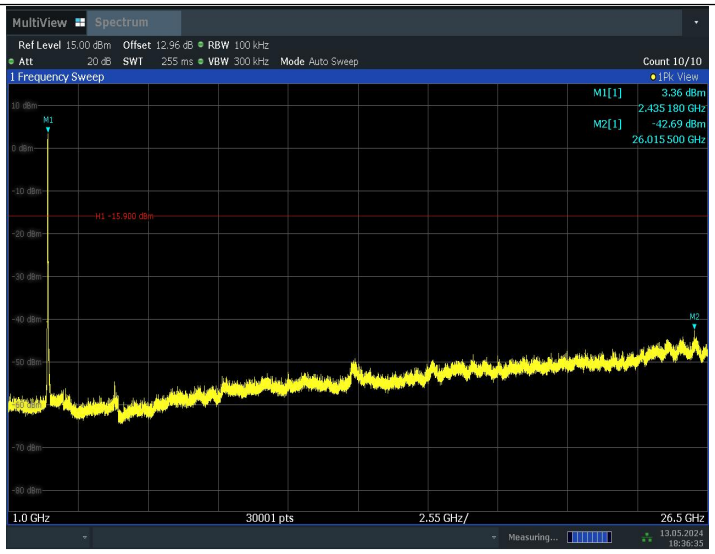

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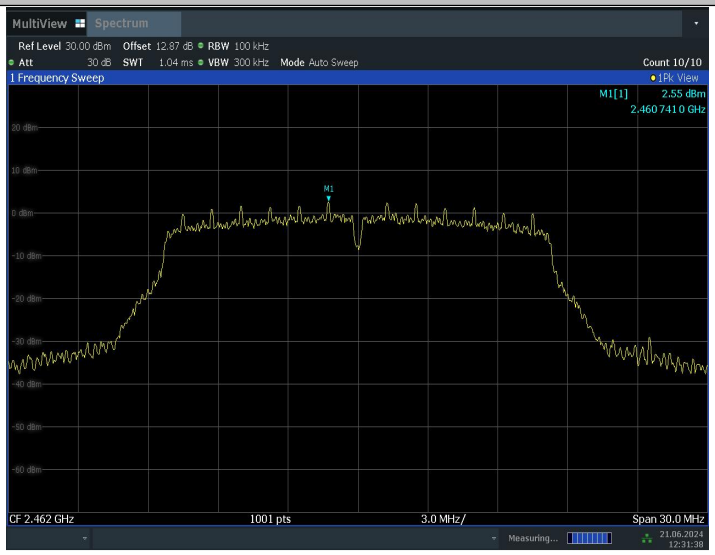

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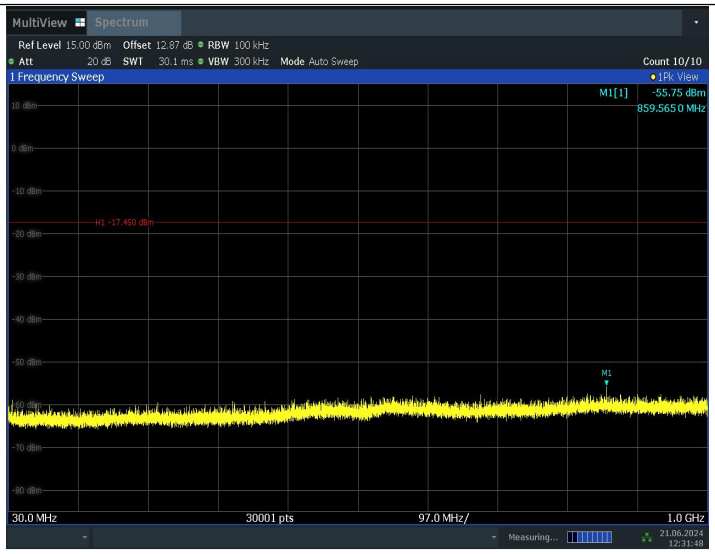

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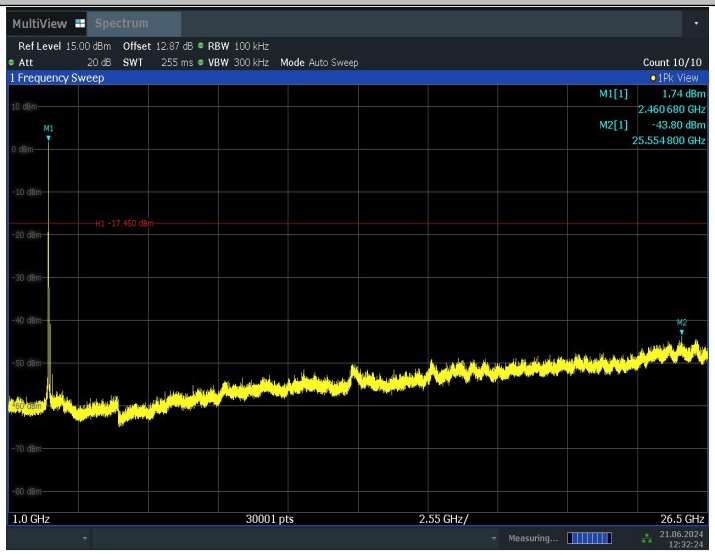

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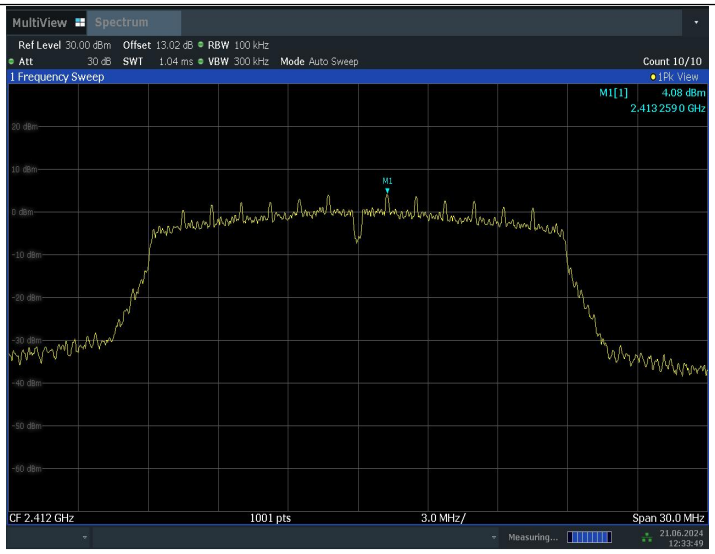

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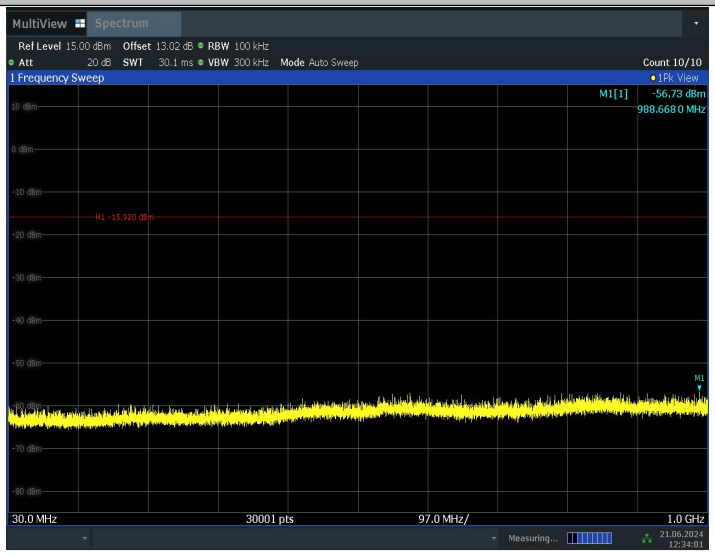

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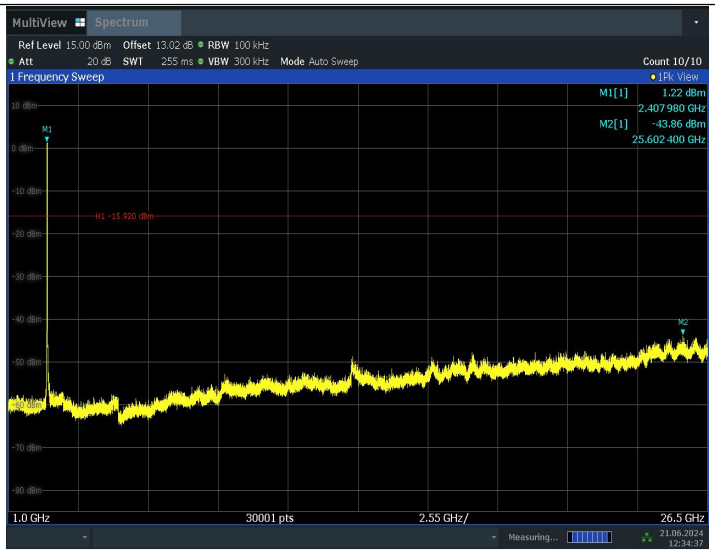

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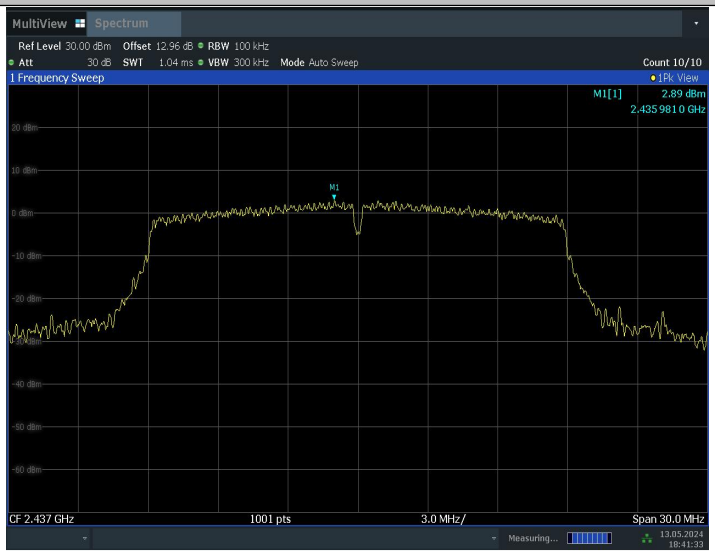

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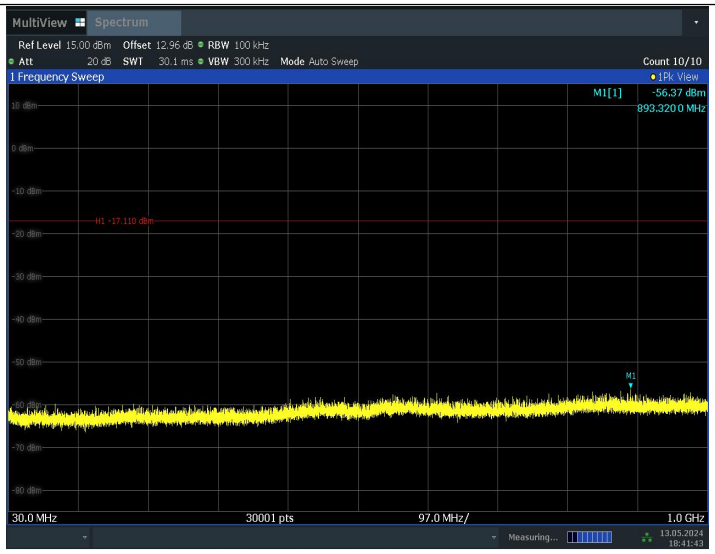

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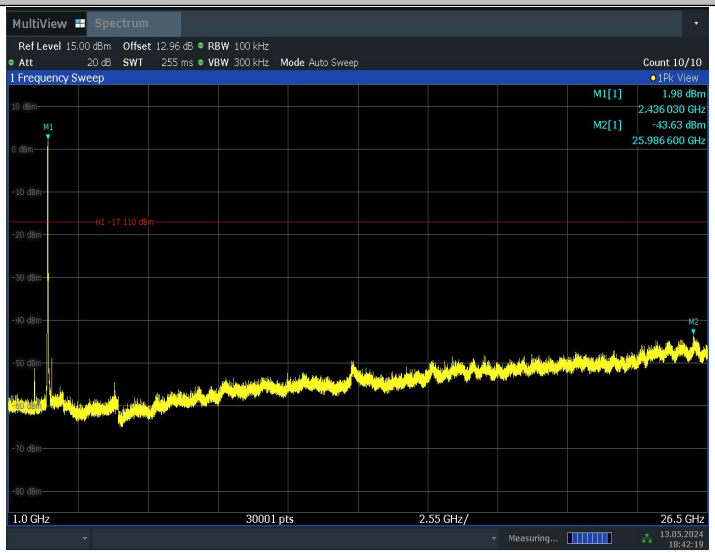

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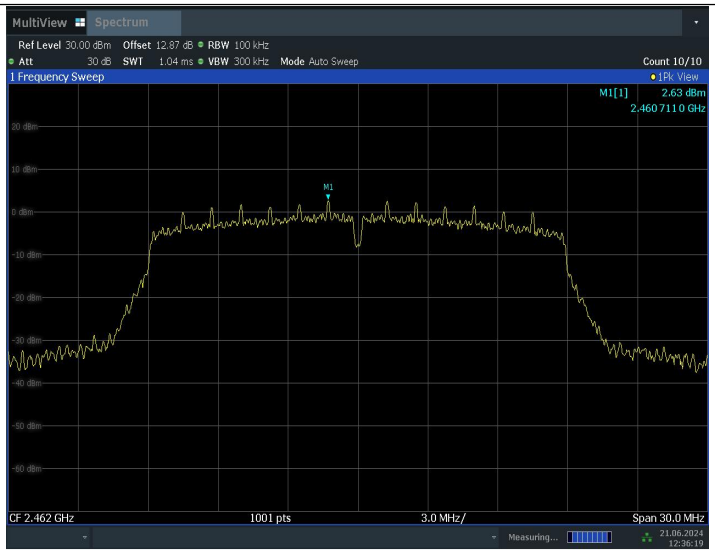

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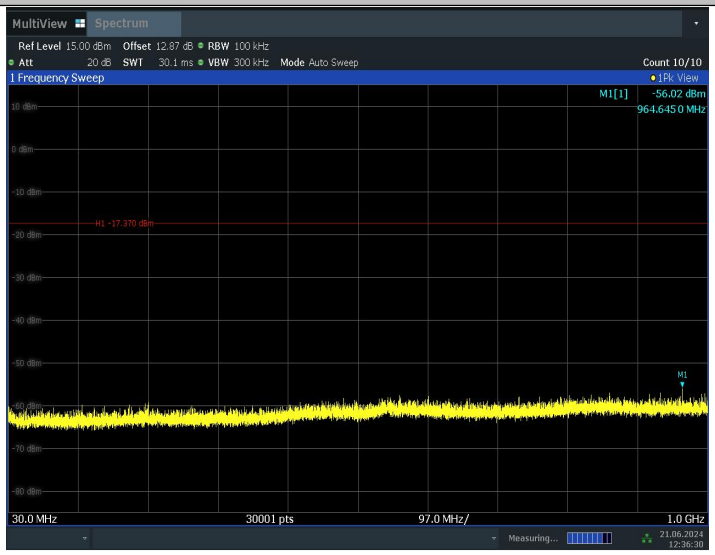

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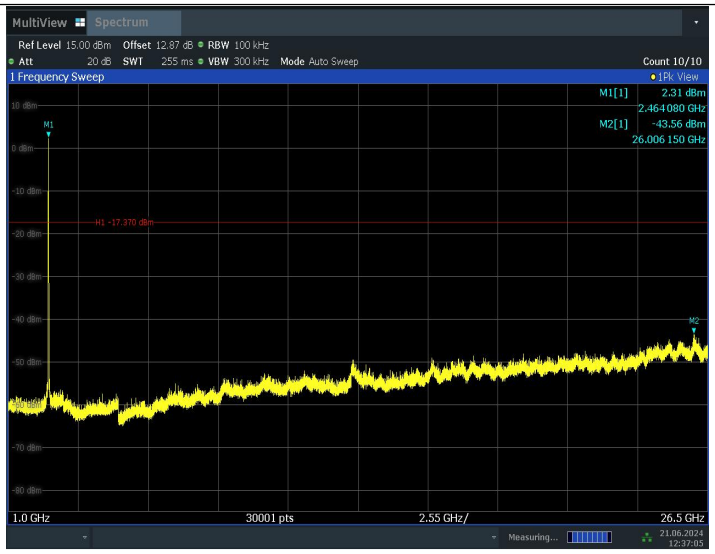

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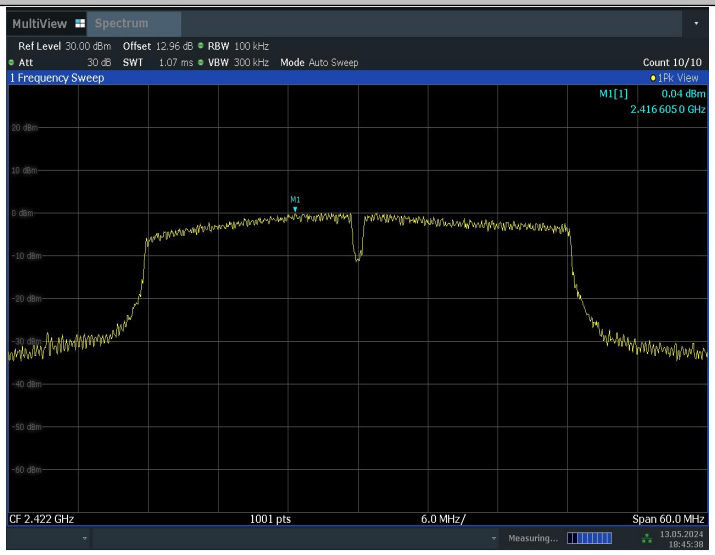

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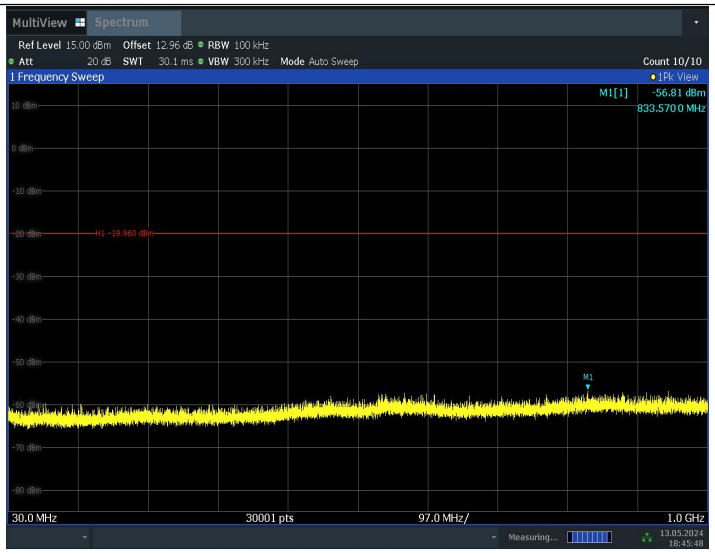

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18:46:25 13.05.2024

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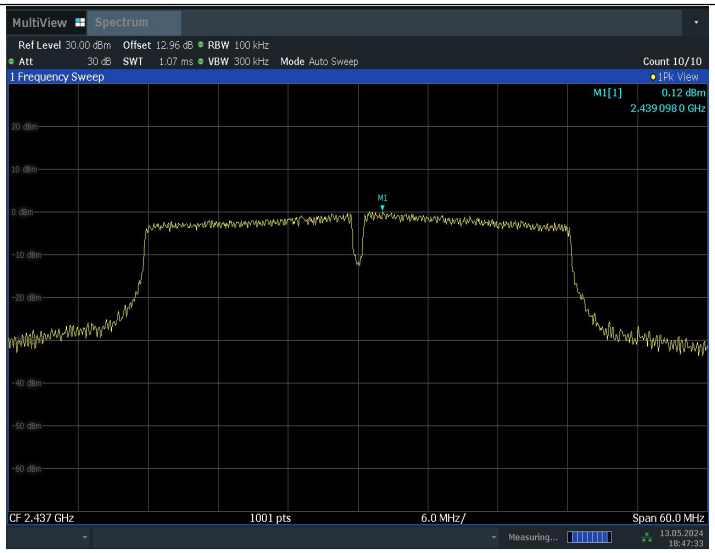

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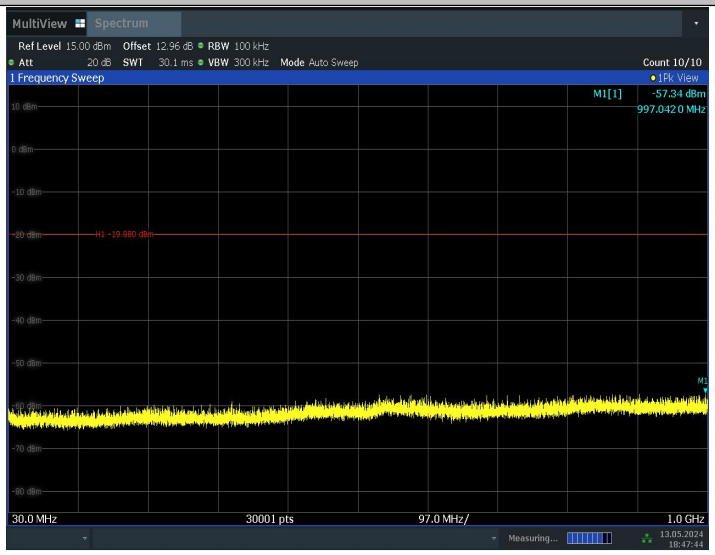

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18:48:21 13.05.2024

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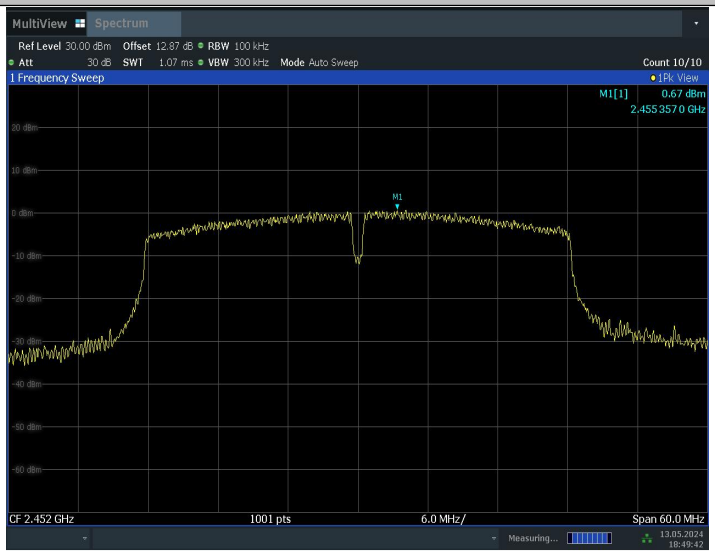

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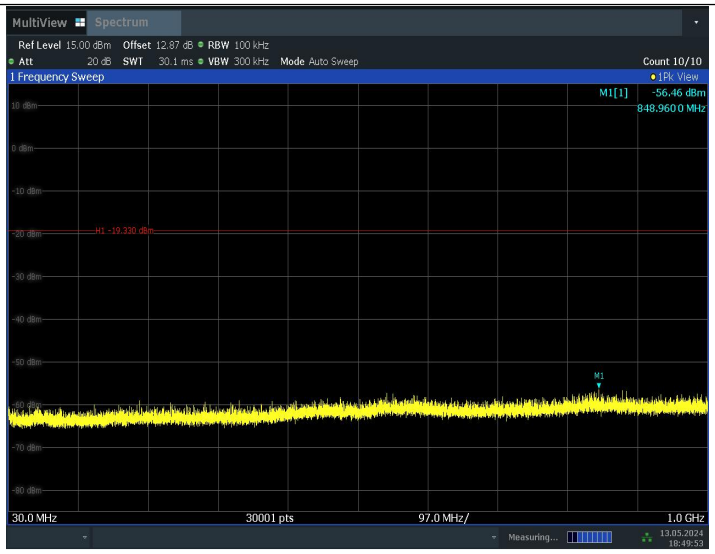

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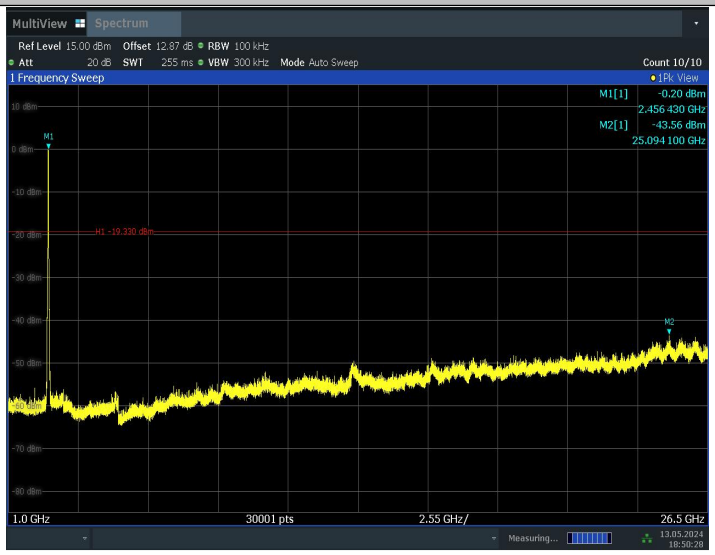


18:50:29 13.05.2024

Conclusion: Pass

A.7. Radiated Unwanted Emission

Limits

Measurement Limit

Standard	Limit
FCC 47 CFR Part 15.247, 15.205, 15.209	20dB below peak output power

In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a) (see § 15.205(c)).

Limit in restricted band

Frequency (MHz)	Field strength(μV/m)	Measurement distance (m)
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(kHz)	30
1.705 – 30.0	30	30

Frequency of emission (MHz)	Field strength (uV/m)	Field strength (dBuV/m)	Measurement distance (m)
30-88	100	40	3
88-216	150	43.5	3
216-960	200	46	3
Above 960	500	54	3

Note: When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor.

Test setup

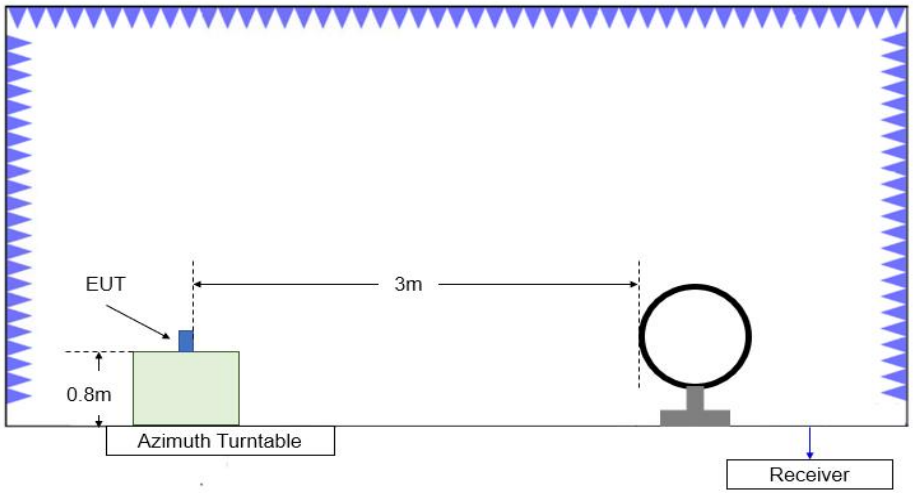


Figure A.7.1. Test Site Diagram (9kHz-30MHz)

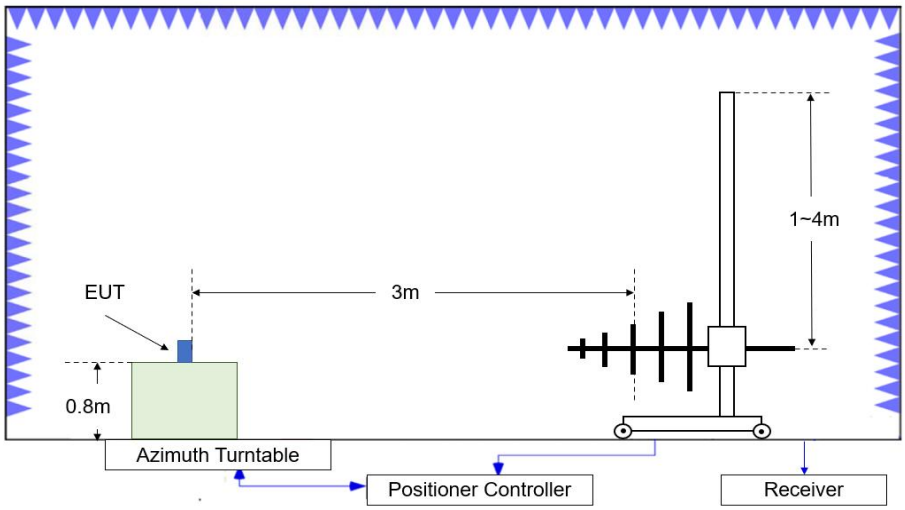


Figure A.7.2. Test Site Diagram (30MHz-1GHz)

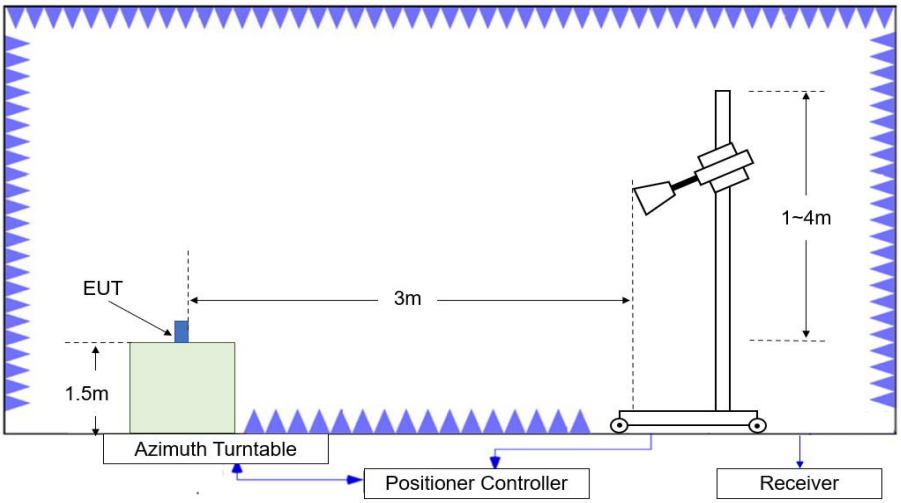


Figure A.7.3. Test Site Diagram (1GHz-40GHz)

Test Procedures

Radiated unwanted emissions from the EUT were measured according to ANSI C63.10.

Test setting

Frequency of emission (MHz)	RBW/VBW	Sweep Time(s)
30-1000	100kHz/300kHz	5
1000-3000	1MHz/3MHz	15
3000-18000	1MHz/3MHz	40
18000-26500	1MHz/3MHz	20

Sample Calculation

A "reference path loss" is established and the A_{Rpl} is the attenuation of “reference path loss”, and including the gain of receive antenna, the gain of the preamplifier, the cable loss.

P_{Mea} is the field strength recorded from the instrument.

The measurement results are obtained as described below:
Result=P_{Mea}+$A_{Rpl=}$ P_{Mea}+Cable Loss+Antenna Factor

Test note

1. The EUT is operating at its maximum duty cycle and its maximum power control level.
2. Investigation has been done on all modes and modulations/data rates. Only the radiated emissions of the configuration that produced the worst case emissions are reported in this section.
3. Spurious emissions for all channels were investigated and almost the same below 1GHz. According to FCC 47 CFR §15.31, emission levels are not report much lower than the limit by over 20dB
4. Measurement frequencies were performed from 9 kHz to the 10th harmonic of highest fundamental frequency or 40GHz, whichever is lower.

Test Result

Peak

802.11b

Ch1

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
2373.210	61.52	6.03	31.64	23.85	74.00	12.48	H
2386.510	61.38	5.99	31.72	23.67	74.00	12.62	V
4824.000	52.40	-33.56	34.10	51.85	74.00	21.60	V
7236.000	42.78	-31.64	35.70	38.71	74.00	31.22	V
9648.000	46.80	-29.73	36.80	39.73	74.00	27.20	V
12060.000	46.46	-28.80	38.86	36.39	74.00	27.54	V

Ch6

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
2408.400	60.45	6.00	31.82	22.63	74.00	13.55	V
2478.000	61.80	6.14	32.18	23.48	74.00	12.20	V
4874.000	55.40	-33.48	34.10	54.78	74.00	18.60	V
7311.000	42.64	-31.67	35.72	38.58	74.00	31.36	V
9748.000	45.56	-30.00	36.90	38.67	74.00	28.44	V
12185.000	46.71	-29.14	38.99	36.86	74.00	27.29	H

Ch11

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
2487.275	63.00	6.13	32.27	24.59	74.00	11.00	H
2491.050	62.73	6.13	32.31	24.29	74.00	11.27	V

4924.000	52.37	-33.16	34.10	51.44	74.00	21.63	H
7386.000	42.48	-31.40	35.80	38.07	74.00	31.53	V
9848.000	43.99	-30.29	37.00	37.29	74.00	30.01	H
12310.000	47.07	-29.24	38.90	37.41	74.00	26.93	H

802.11g

Ch1

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
2389.170	70.54	5.98	31.74	32.82	74.00	3.46	V
2389.940	71.47	5.98	31.74	33.76	74.00	2.53	V
4824.000	45.83	-33.56	34.10	45.28	74.00	28.17	V
7236.000	42.12	-31.64	35.70	38.06	74.00	31.88	V
9648.000	45.13	-29.73	36.80	38.06	74.00	28.87	H
12060.000	46.41	-28.80	38.86	36.35	74.00	27.59	V

Ch6

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
2394.800	62.42	5.99	31.77	24.67	74.00	11.58	H
2475.600	67.28	6.13	32.16	28.99	74.00	6.72	V
4874.000	48.76	-33.48	34.10	48.14	74.00	25.24	H
7311.000	43.02	-31.67	35.72	38.96	74.00	30.98	V
9748.000	45.85	-30.00	36.90	38.95	74.00	28.15	H
12185.000	46.64	-29.14	38.99	36.79	74.00	27.36	V

Ch11

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
2483.925	70.32	6.14	32.24	31.94	74.00	3.68	H
2484.100	68.57	6.14	32.24	30.19	74.00	5.43	H
4924.000	46.33	-33.16	34.10	45.40	74.00	27.67	H
7386.000	43.81	-31.40	35.80	39.40	74.00	30.19	H
9848.000	43.61	-30.29	37.00	36.91	74.00	30.39	V
12310.000	46.52	-29.24	38.90	36.85	74.00	27.49	H

802.11n-HT20

Ch1

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
2389.310	69.50	5.98	31.74	31.79	74.00	4.50	H
2389.870	70.36	5.98	31.74	32.64	74.00	3.64	V
4824.000	45.72	-33.56	34.10	45.18	74.00	28.28	V
7236.000	43.48	-31.64	35.70	39.41	74.00	30.52	H
9648.000	46.11	-29.73	36.80	39.04	74.00	27.90	V
12060.000	46.64	-28.80	38.86	36.58	74.00	27.36	V

Ch6

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
2393.200	61.72	5.98	31.76	23.98	74.00	12.28	V
2479.600	64.05	6.15	32.20	25.71	74.00	9.95	H
4874.000	48.46	-33.48	34.10	47.84	74.00	25.54	H
7311.000	42.46	-31.67	35.72	38.41	74.00	31.54	H
9748.000	44.94	-30.00	36.90	38.05	74.00	29.06	V
12185.000	47.26	-29.14	38.99	37.41	74.00	26.74	H

Ch11

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
2484.300	70.86	6.14	32.24	32.48	74.00	3.14	V
2484.650	69.87	6.14	32.24	31.49	74.00	4.13	V
4924.000	43.51	-33.16	34.10	42.57	74.00	30.49	H
7386.000	43.26	-31.40	35.80	38.85	74.00	30.74	V
9848.000	43.63	-30.29	37.00	36.92	74.00	30.37	H
12310.000	45.88	-29.24	38.90	36.21	74.00	28.13	V

802.11n-HT40

Ch3

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
2388.470	70.29	5.99	31.72	32.58	74.00	3.71	V
2389.800	71.64	5.98	31.74	33.93	74.00	2.36	V
4844.000	45.17	-33.26	34.10	44.33	74.00	28.84	V
7266.000	43.65	-31.71	35.70	39.66	74.00	30.35	H
9688.000	45.06	-29.84	36.80	38.10	74.00	28.94	V
12110.000	45.77	-29.20	38.91	36.06	74.00	28.23	V

Ch6

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
2394.400	63.61	5.98	31.77	25.86	74.00	10.39	V
2473.200	64.69	6.12	32.13	26.43	74.00	9.32	V
4874.000	45.53	-33.48	34.10	44.91	74.00	28.47	V
7311.000	43.58	-31.67	35.72	39.53	74.00	30.42	H
9748.000	44.25	-30.00	36.90	37.35	74.00	29.75	V
12185.000	46.16	-29.14	38.99	36.31	74.00	27.84	V

Ch9

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
2483.925	72.10	6.14	32.25	33.71	74.00	1.90	H
2484.100	71.53	6.14	32.25	33.14	74.00	2.47	V
4904.000	42.19	-33.15	34.10	41.24	74.00	31.81	V
7356.000	44.74	-31.58	35.80	40.52	74.00	29.26	V
9808.000	44.49	-30.54	37.00	38.03	74.00	29.51	H
12260.000	46.61	-29.00	38.94	36.67	74.00	27.39	H

Average

802.11b

Ch1

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
2385.400	48.60	6.00	31.71	10.88	54.00	5.41	V
2386.800	48.48	5.99	31.72	10.76	54.00	5.52	V
4824.000	51.68	-33.56	34.10	51.14	54.00	2.32	V
7236.000	31.02	-31.64	35.70	26.95	54.00	22.99	H
9648.000	34.18	-29.73	36.80	27.12	54.00	19.82	H
12060.000	35.18	-28.80	38.86	25.12	54.00	18.82	V

Ch6

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
2410.600	48.55	6.01	31.82	10.72	54.00	5.45	V
2462.200	49.75	6.11	32.02	11.62	54.00	4.25	V
4874.000	53.78	-33.48	34.10	53.16	54.00	0.22	H
7311.000	31.36	-31.67	35.72	27.30	54.00	22.65	V
9748.000	33.72	-30.00	36.90	26.82	54.00	20.28	V
12185.000	34.48	-29.14	38.99	24.63	54.00	19.52	H

Ch11

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
2528.400	49.48	6.15	32.51	10.82	54.00	4.52	V
2557.200	49.71	6.25	32.59	10.88	54.00	4.29	V
4924.000	50.32	-33.16	34.10	49.39	54.00	3.68	H
7386.000	31.31	-31.40	35.80	26.91	54.00	22.69	V
9848.000	32.75	-30.29	37.00	26.05	54.00	21.25	H
12310.000	34.55	-29.24	38.90	24.89	54.00	19.45	H

802.11g

Ch1

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
2389.800	52.97	5.98	31.74	15.25	54.00	1.03	V
2390.000	53.30	5.98	31.74	15.59	54.00	0.70	V
4824.000	35.45	-33.56	34.10	34.90	54.00	18.55	V
7236.000	31.63	-31.64	35.70	27.56	54.00	22.37	V
9648.000	34.02	-29.73	36.80	26.96	54.00	19.98	H
12060.000	34.82	-28.80	38.86	24.76	54.00	19.18	V

Ch6

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
2395.000	46.41	5.99	31.77	8.66	54.00	7.59	V
2484.200	48.86	6.14	32.24	10.48	54.00	5.14	V
4874.000	39.13	-33.48	34.10	38.51	54.00	14.87	V
7311.000	32.05	-31.67	35.72	27.99	54.00	21.96	V
9748.000	33.25	-30.00	36.90	26.36	54.00	20.75	V
12185.000	34.42	-29.14	38.99	24.57	54.00	19.58	H

Ch11

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
2483.800	50.99	6.14	32.24	12.61	54.00	3.01	V
2484.400	50.52	6.14	32.24	12.14	54.00	3.48	V
4924.000	34.08	-33.16	34.10	33.15	54.00	19.92	V
7386.000	31.40	-31.40	35.80	27.00	54.00	22.60	V
9848.000	32.49	-30.29	37.00	25.79	54.00	21.51	H
12310.000	34.48	-29.24	38.90	24.82	54.00	19.52	H

802.11n-HT20

Ch1

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
2389.000	48.92	5.98	31.74	11.20	54.00	5.08	V
2389.400	49.14	5.98	31.74	11.42	54.00	4.86	V
4824.000	33.92	-33.56	34.10	33.37	54.00	20.08	V
7236.000	31.85	-31.64	35.70	27.79	54.00	22.15	V
9648.000	33.96	-29.73	36.80	26.90	54.00	20.04	V
12060.000	34.75	-28.80	38.86	24.68	54.00	19.26	V

Ch6

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
2402.000	49.92	6.00	31.80	12.12	54.00	4.08	V
2480.000	50.18	6.15	32.20	11.83	54.00	3.82	V
4874.000	37.73	-33.48	34.10	37.11	54.00	16.27	V
7311.000	31.77	-31.67	35.72	27.71	54.00	22.23	H
9748.000	33.34	-30.00	36.90	26.44	54.00	20.66	V
12185.000	34.38	-29.14	38.99	24.53	54.00	19.62	V

Ch11

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
2483.600	51.08	6.14	32.24	12.70	54.00	2.92	V
2484.200	50.82	6.14	32.24	12.44	54.00	3.18	V
4924.000	33.17	-33.16	34.10	32.24	54.00	20.83	H
7386.000	31.39	-31.40	35.80	26.99	54.00	22.61	V
9848.000	32.37	-30.29	37.00	25.66	54.00	21.63	V
12310.000	34.37	-29.24	38.90	24.70	54.00	19.63	V

802.11n-HT40

Ch3

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
2389.000	50.36	5.98	31.74	12.65	54.00	3.64	V
2389.200	50.54	5.98	31.74	12.82	54.00	3.46	V
4844.000	34.66	-33.26	34.10	33.82	54.00	19.35	V
7266.000	31.70	-31.71	35.70	27.71	54.00	22.30	V
9688.000	33.51	-29.84	36.80	26.55	54.00	20.49	H
12110.000	34.12	-29.20	38.91	24.40	54.00	19.89	H

Ch6

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
2398.600	49.72	5.99	31.79	11.94	54.00	4.28	V
2473.600	50.56	6.12	32.14	12.30	54.00	3.44	V
4874.000	34.79	-33.48	34.10	34.17	54.00	19.21	H
7311.000	31.51	-31.67	35.72	27.46	54.00	22.49	H
9748.000	33.18	-30.00	36.90	26.29	54.00	20.82	H
12185.000	34.33	-29.14	38.99	24.48	54.00	19.67	V

Ch9

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
2485.600	51.06	6.14	32.24	12.68	54.00	2.94	V
2487.200	50.80	6.14	32.24	12.42	54.00	3.20	V
4904.000	32.50	-33.15	34.10	31.55	54.00	21.50	V
7356.000	31.65	-31.58	35.80	27.43	54.00	22.35	H
9808.000	32.46	-30.54	37.00	26.01	54.00	21.54	V
12260.000	34.81	-29.00	38.94	24.87	54.00	19.19	H

Band edge compliance

802.11b mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11b	1	2.31GHz~2.43GHz---L	Fig.1	**P**
	11	2.45GHz~2.50GHz---H	Fig.2	**P**

802.11g mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11g	1	2.31GHz~2.43GHz---L	Fig.3	**P**
	11	2.45GHz~2.50GHz---H	Fig.4	**P**

802.11n-HT20 mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11n (HT20)	1	2.31GHz~2.43GHz---L	Fig.5	**P**
	11	2.45GHz~2.50GHz---H	Fig.6	**P**

802.11n-HT40 mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11n (HT40)	3	2.31GHz~2.43GHz---L	Fig.7	**P**
	9	2.45GHz~2.50GHz---H	Fig.8	**P**

Test graphs as below:

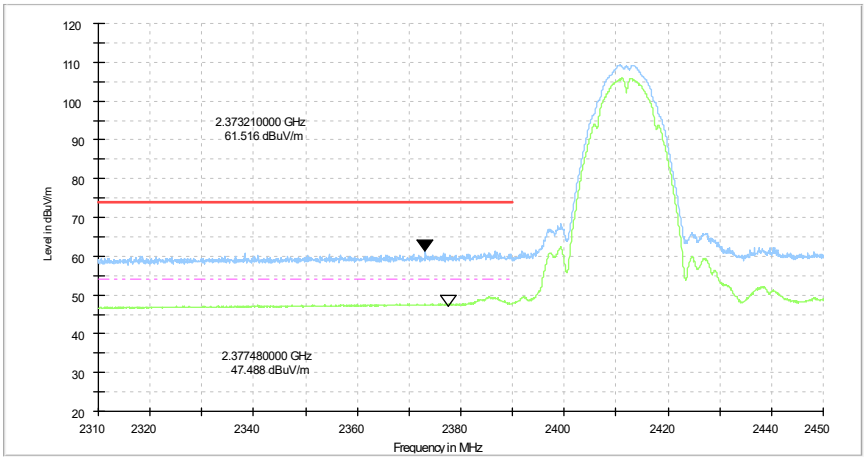


Fig.1 Transmitter Spurious Emission - Radiated (Power): 802.11b, ch1, 2.31 GHz – 2.43GHz

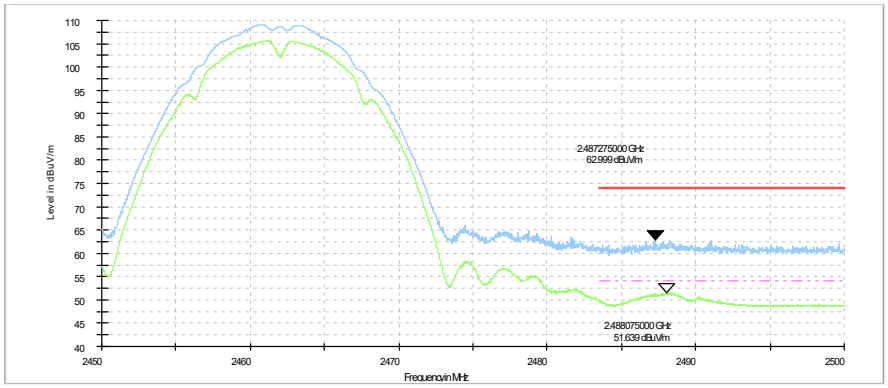


Fig.2 Transmitter Spurious Emission - Radiated (Power): 802.11b, ch11, 2.45 GHz - 2.50GHz

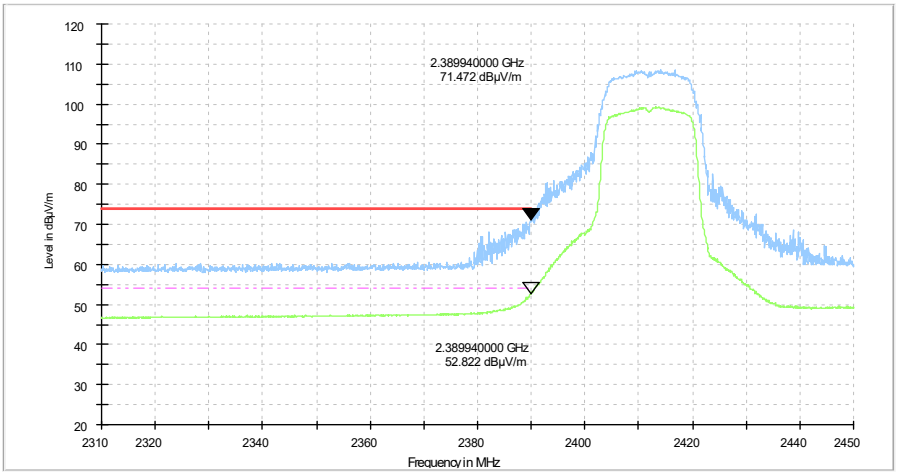


Fig.3 Transmitter Spurious Emission - Radiated (Power): 802.11g, ch1, 2.31 GHz - 2.43GHz

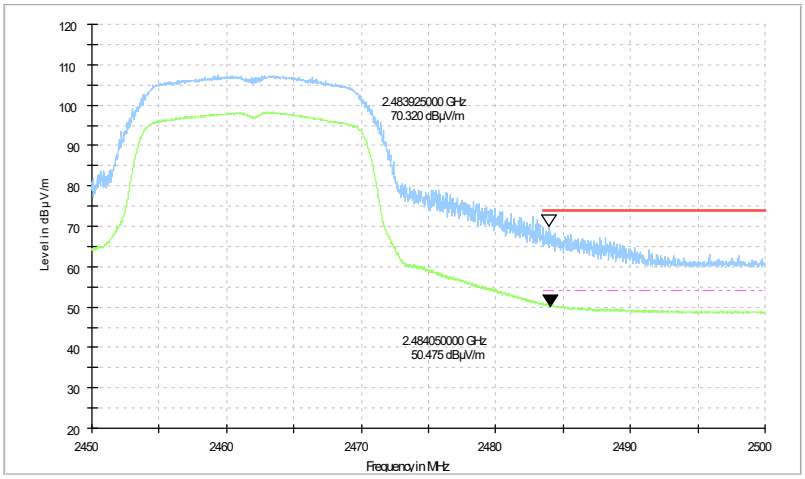


Fig.4 Transmitter Spurious Emission - Radiated (Power): 802.11g, ch11, 2.45 GHz - 2.50GHz

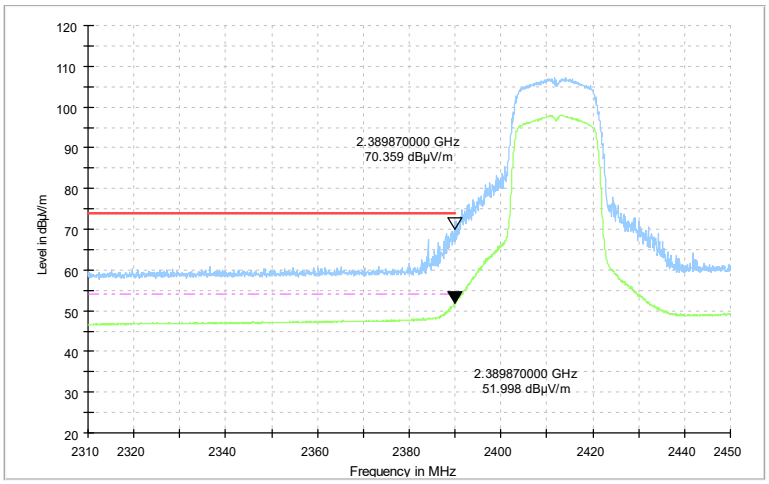


Fig.5 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT20, ch1, 2.31 GHz - 2.43GHz

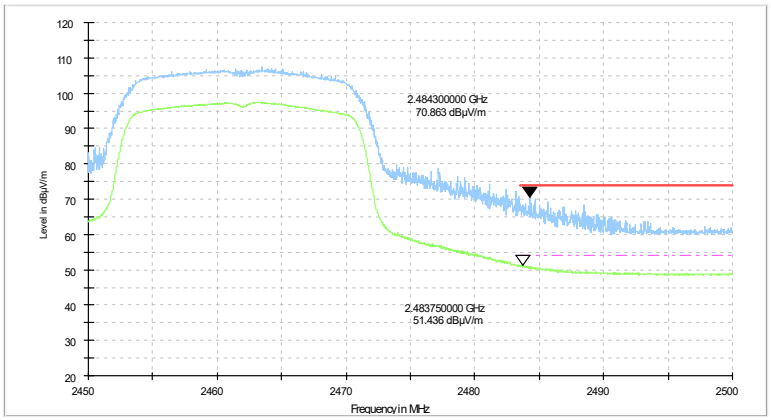


Fig.6 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT20, ch11, 2.45 GHz - 2.50GHz

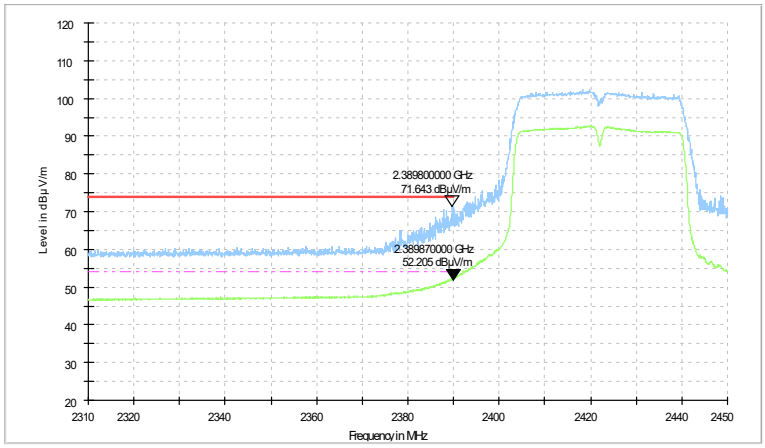


Fig.7 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT40, ch3, 2.31 GHz - 2.43GHz

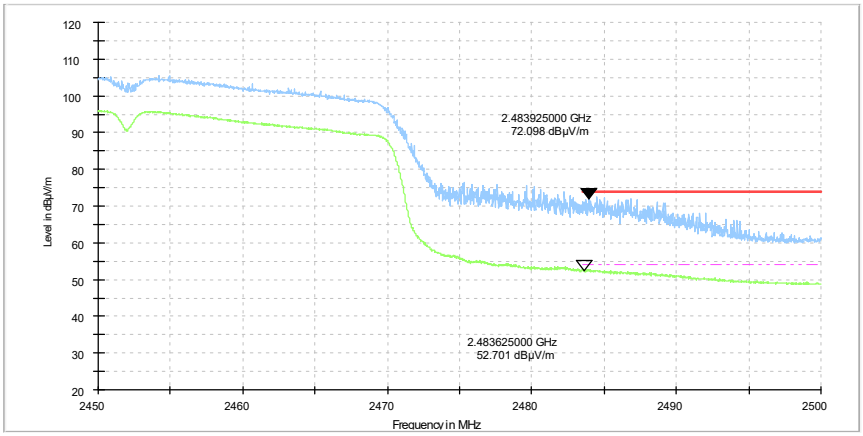


Fig.8 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT40, ch9, 2.45 GHz - 2.50GHz

A.8. AC Power-line Conducted Emission

Summary

All AC line conducted spurious emissions are measured with a receiver connected to a grounded LISN while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies. All data rates and modes were investigated for conducted spurious emissions. Only the conducted emissions of the configuration that produced the worst case emissions are reported in this section

Method of Measurement:

See Clause 6.2 of ANSI C63.10 specifically.

See Clause 4 and Clause 5 of ANSI C63.10 generally.

The conducted emissions from the AC port of the EUT are measured in a shielding room. The EUT is connected to a Line Impedance Stabilization Network (LISN). An overview sweep with peak detection was performed. The measurements were performed with a quasi-peak detector and if required, an average detector.

The conducted emission measurements were made with the following detector of the test receiver: Quasi-Peak / Average Detector.

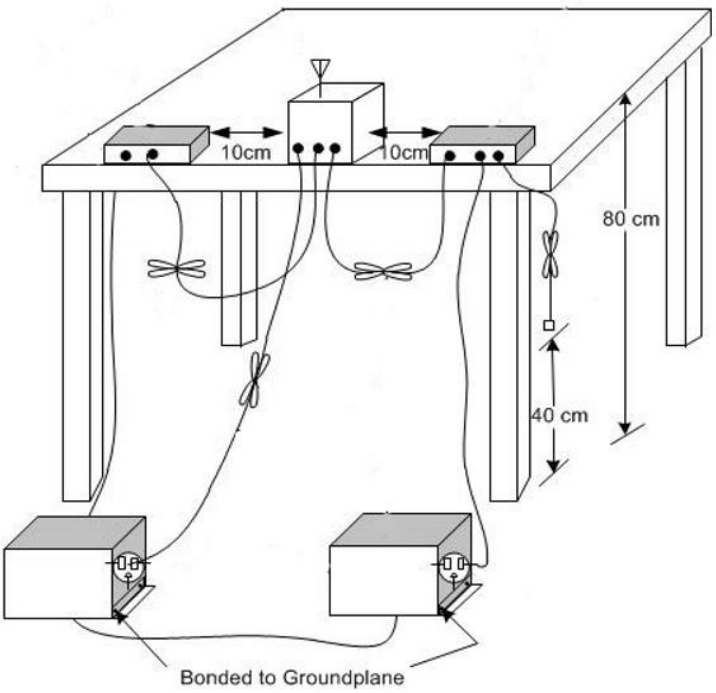
The measurement bandwidth is:

Frequency of Emission (MHz)	RBW/IF bandwidth
0.15-30	9kHz

Test Condition:

Voltage（V）	Frequency（Hz）
120	60

Test setup



Measurement Result and limit:

WLAN (Quasi-peak Limit)

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Result (dBμV)		Conclusion
		With charger		
		802.11b	Idle	
0.15 to 0.5	66 to 56	Fig.A.8.1	Fig.A.8.2	P
0.5 to 5	56			
5 to 30	60			
NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.				

WLAN (Average Limit)

Frequency range (MHz)	Average Limit (dBμV)	Result (dBμV)		Conclusion
		With charger		
		802.11b	Idle	
0.15 to 0.5	56 to 46	Fig.A.8.1	Fig.A.8.2	P
0.5 to 5	46			
5 to 30	50			
NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.				

Conclusion: Pass

Test graphs as below:

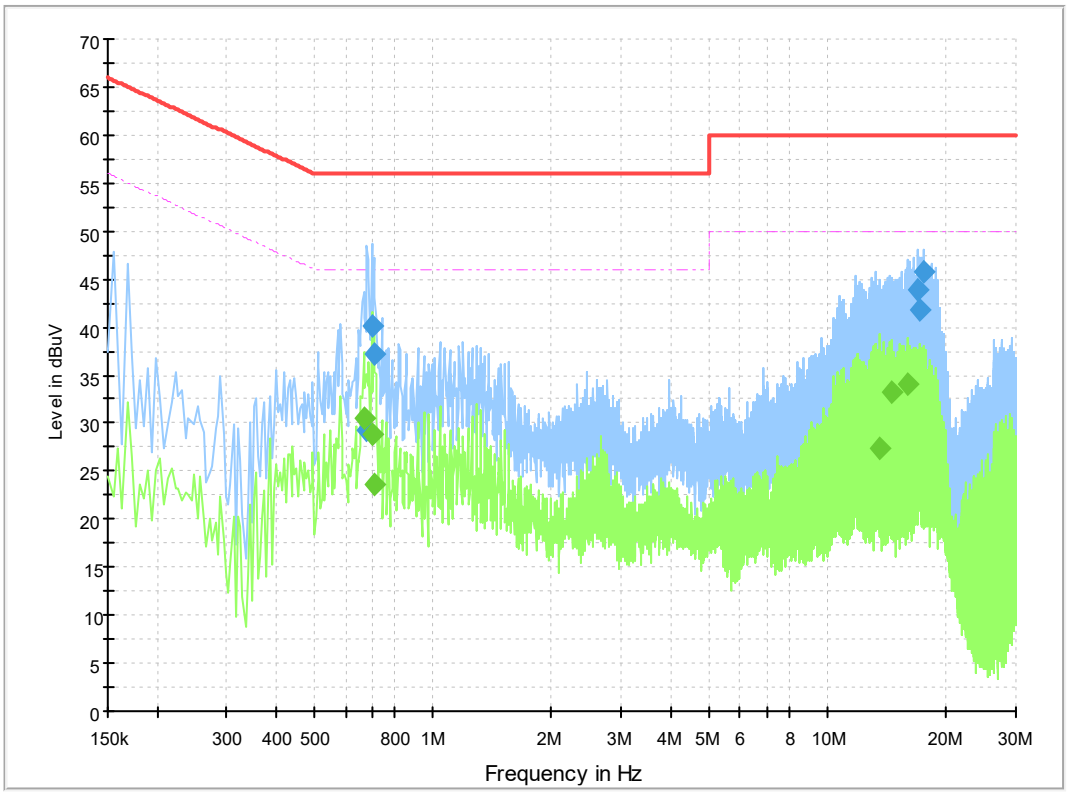


Fig.A.8.1 AC Powerline Conducted Emission-802.11b

Note: The graphic result above is the maximum of the measurements for both phase line and neutral line.

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)	Comment
0.681000	29.3	2000.0	9.000	On	L1	20.0	26.7	56.0	
0.699000	40.2	2000.0	9.000	On	N	20.1	15.8	56.0	
0.708000	37.1	2000.0	9.000	On	N	20.1	18.9	56.0	
16.966500	43.8	2000.0	9.000	On	N	20.2	16.2	60.0	
17.061000	41.7	2000.0	9.000	On	L1	20.1	18.3	60.0	
17.488500	45.7	2000.0	9.000	On	N	20.2	14.3	60.0	

Final Result 2

Frequency (MHz)	CAverage (dBµV)	Meas. Time	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)	Comment
0.667500	30.6	2000.0	9.000	On	N	20.1	15.4	46.0	
0.699000	28.8	2000.0	9.000	On	N	20.1	17.2	46.0	
0.708000	23.6	2000.0	9.000	On	L1	20.0	22.4	46.0	
13.537500	27.5	2000.0	9.000	On	N	20.2	22.6	50.0	
14.482500	33.3	2000.0	9.000	On	L1	20.0	16.7	50.0	
15.936000	34.0	2000.0	9.000	On	L1	20.0	16.0	50.0	

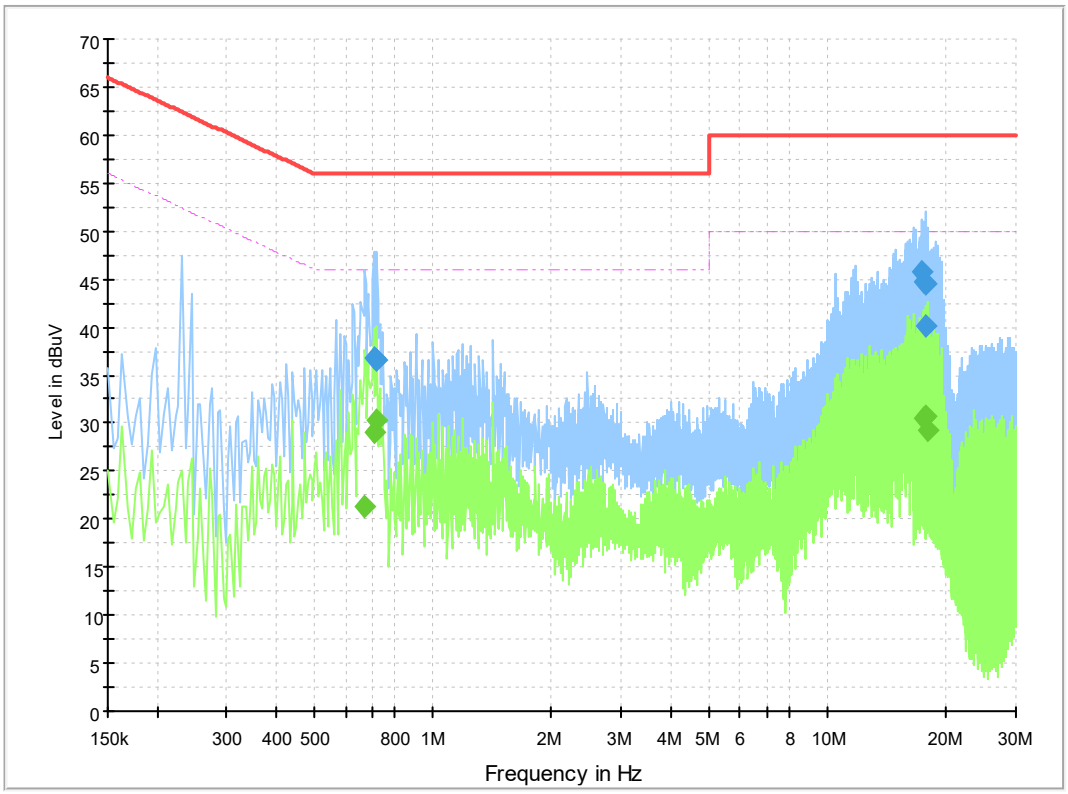


Fig.A.8.2 AC Powerline Conducted Emission-Idle

Note: The graphic result above is the maximum of the measurements for both phase line and neutral line.

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)	Comment
0.708000	36.8	2000.0	9.000	On	N	20.1	19.2	56.0	
0.721500	36.6	2000.0	9.000	On	L1	20.0	19.4	56.0	
17.254500	45.7	2000.0	9.000	On	N	20.2	14.3	60.0	
17.574000	44.8	2000.0	9.000	On	N	20.2	15.2	60.0	
17.731500	40.1	2000.0	9.000	On	L1	20.1	19.9	60.0	
17.749500	44.6	2000.0	9.000	On	N	20.2	15.4	60.0	

Final Result 2

Frequency (MHz)	CAverage (dBµV)	Meas. Time	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)	Comment
0.672000	21.3	2000.0	9.000	On	L1	20.0	24.7	46.0	
0.708000	29.0	2000.0	9.000	On	N	20.1	17.0	46.0	
0.721500	30.3	2000.0	9.000	On	N	20.2	15.7	46.0	
17.497500	30.5	2000.0	9.000	On	N	20.2	19.5	50.0	
17.686500	30.7	2000.0	9.000	On	L1	20.1	19.3	50.0	
17.839500	29.2	2000.0	9.000	On	N	20.2	20.8	50.0	

A.9. Antenna Requirement

The antenna of the device is permanently attached. There are no provisions for connection to an external antenna.

The unit complies with the requirement of FCC Part 15.203.

ANNEX B: EUT parameters

Disclaimer: The antenna gain and worse case provided by the client may affect the validity of the measurement results in this report, and the client shall bear the impact and consequences arising therefrom.

ANNEX C: Accreditation Certificate

Accredited Laboratory

A2LA has accredited

TELECOMMUNICATION TECHNOLOGY LABS, CAICT

Beijing, People's Republic of China

for technical competence in the field of

Electrical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 *General requirements for the competence of testing and calibration laboratories*. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (*refer to joint ISO-ILAC-IAF Communiqué dated April 2017*).

Presented this 26th day of June 2023.

Mr. Trace McInturff, Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 7049.01
Valid to July 31, 2024

For the tests to which this accreditation applies, please refer to the laboratory's Electrical Scope of Accreditation.

*****END OF REPORT*****